

CLAIMS

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What is claimed is:

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1. An apparatus that provides digital broadcast television programs to a subscriber, comprising;

a receiver module that receives program data and a local authorization code, wherein the authorization code allows the digital broadcast television programs to be decrypted for viewing;

a transmitter that sends a program selection to a remote site, wherein the program selection is made from the program data; and

a memory coupled to the receiver module, the memory storing the received authorization code until needed for decrypting the selected program, wherein when the program selection is received at the remote site, the remote site sends the local authorization code.

2. The apparatus of claim 1, further comprising a processor that processes the received local authorization code to decrypt the digital broadcast television programs, wherein the receiver module includes a first receiver and a second receiver.

3. The apparatus of claim 2, wherein the receiver module, the processor, the transmitter and the memory are contained in a set top terminal operably connected to a television, wherein the receiver module receives the digital broadcast television programs, and wherein when decrypted, the selected program is viewed on the television.

4. The apparatus of claim 3, wherein the television is an analog television, and wherein the set top terminal converts digital programs to analog programs for display on the analog television.

5. The apparatus of claim 2, wherein the first receiver, the transmitter, and the processor are contained on a smart card incorporated into a digital television.

6. The apparatus of claim 5, wherein the second receiver is incorporated into the digital television, wherein the second receiver receives the digital broadcast television programs, and wherein the digital television displays the selected broadcast television program.

7. The apparatus of claim 2, wherein the receiver module, the processor, the transmitter, and the memory are contained on a smart card incorporated into a digital television, and wherein the digital television comprises a third receiver that receives the digital broadcast television programs.

8. The apparatus of claim 7, wherein the digital television further comprises a demultiplexer that demultiplexes the received digital broadcast television programs.

9. The apparatus of claim 2, wherein the first receiver, the processor and the transmitter are incorporated in a personal computer, and wherein the program data are displayed on a display of the personal computer.

10. The apparatus of claim 9, wherein the second receiver and the memory are incorporated into a digital television, wherein the second receiver receives the digital television programs and the local authorization code, the digital television comprising a processor that processes the received local authorization code to decrypt the digital broadcast television programs.

11. The apparatus of claim 9, wherein the personal computer comprises a connector that couples the personal computer to a digital television, the second receiver and the memory are incorporated into the digital television, the second receiver receives the digital broadcast television programs, and wherein the first receiver receives the local authorization code and the personal computer sends the local authorization code to the digital television, the digital television comprising a processor that processes the received local authorization code to decrypt the digital broadcast television programs.

12. The apparatus of claim 11, wherein the connector is one of a radio frequency connector, an infra red connector and a wired connector.

13. The apparatus of claim 12, wherein the wired connector comprises RS-232 connections and an RS-232 cable.

14. The apparatus of claim 1, wherein the transmitter comprises one of a telephone modem, a cable modem, a wireless modem, an asymmetric digital subscriber line connector, an integrated services digital network connector, T1 and T3 lines, a fiber optic connector, a local area net connector and a satellite antenna connector.

1 15. The apparatus of claim 1, further comprising a broadcast interface that
2 receives the digital broadcast television programs, wherein the broadcast interface
3 comprises one of a radio frequency connector, a telephone modem, a cable modem, a
4 wireless modem, an asymmetric digital subscriber line connector, an integrated digital
5 services network connector, T1 and T3 lines, a fiber optic connector, and a local area net
6 connector and a satellite antenna connector.

7 16. The apparatus of claim 1, further comprising a demultiplexer, wherein the
8 digital broadcast television programs are multiplexed with the local authorization code,
9 and wherein the demultiplexer demultiplexes the local authorization code and the digital
10 broadcast television programs.

11 17. The apparatus of claim 1, wherein the program data is program guide data,
12 further comprising a remote control, wherein the remote control sends commands to
13 scroll the program guide data and to select a desired program for viewing.

14 18. The apparatus of claim 17, wherein the remote control is one of a wired
15 control, an infra red control, a radio frequency control, and a laser control.

16 19. The apparatus of claim 1, wherein the digital broadcast television programs
17 are provided over a cable television network.

18 20. The apparatus of claim 1, wherein the digital broadcast television programs
19 are provided via over-the-air broadcast.

20 21. The apparatus of claim 20, wherein the over-the-air broadcast is provided
21 from a national broadcaster.

22 22. The apparatus of claim 20, wherein the over-the-air broadcast is provided
23 from a broadcast affiliate.

24 23. The apparatus of claim 1, wherein the digital broadcast television programs
25 are provided via satellite broadcast.

26 24. The apparatus of claim 1, wherein the remote site includes one of a local
27 cable system, a broadcast affiliate and a national broadcaster.

1 25. The apparatus of claim 24, wherein the transmitter sends the program
2 selection to a local cable system, the local cable system returning the local authorization
3 code.

4 26. The apparatus of claim 25, wherein the local authorization code is
5 multiplexed with the digital broadcast television programs.

6 27. The apparatus of claim 24, wherein the transmitter sends the program
7 selection to a broadcast affiliate, the broadcast affiliate returning the local authorization
8 code.

9 28. The apparatus of claim 27, wherein the local authorization code is
10 multiplexed with the digital broadcast television programs.

11 29. The apparatus of claim 24, wherein the transmitter sends the program
12 selection to a national broadcaster, the national broadcaster returning the local
13 authorization code.

14 30. The apparatus of claim 29, wherein the local authorization code is
15 multiplexed with the digital broadcast television programs.

16 31. The apparatus of claim 24, wherein the remote site comprises an order and
17 authorization system, the order and authorization system receiving the program selection
18 and generating an authorization signal, the authorization signal providing the local
19 authorization code.

20 32. The apparatus of claim 31, wherein the order and authorization system is
21 colocated with one of the local cable company, the broadcast affiliate and the national
22 broadcaster.

23 33. The apparatus of claim 31, wherein the order and authorization system
24 includes a billing system, the billing system receiving the authorization request and
25 generating a billing record.

26 34. The apparatus of claim 33, wherein the billing record debits a subscriber's
27 account.

28 35. The apparatus of claim 33, wherein the billing system send the billing record
29 to a subscriber for payment.

1 36. The apparatus of claim 33, wherein the billing system charges a subscriber's
2 credit card account.

3 37. The apparatus of claim 1, wherein the remote site comprises a web page of
4 an Internet, wherein the web page includes the program data and generates an
5 authorization request.

6 38. The apparatus of claim 37, wherein the remote site further comprises an
7 order and authorization system coupled to the web page, the order and authorization
8 system receiving the authorization request and generating an authorization signal, the
9 authorization signal providing the local authorization code.

10 39. The apparatus of claim 38, wherein the order and authorization system
11 includes a billing system, the billing system receiving the authorization request and
12 generating a billing record.

13 40. The apparatus of claim 1, wherein the local authorization code, comprises:
14 an identification code; and
15 an address; and
16 one or more program identifiers, wherein the identification code uniquely
17 identifies the apparatus receiving program access authorization, the address identifies the
18 geographical location of the apparatus and routing instructions, and the one or more
19 program identifiers specify the digital broadcast television programs that are authorized
20 for viewing.

21 41. The apparatus of claim 1, wherein the program selection comprises an event,
22 the apparatus receiving authorization for a single display of the event.

23 42. The apparatus of claim 1, wherein the program selection comprises an event,
24 the apparatus receiving authorization for multiple displays of the event.

25 43. The apparatus of claim 1, wherein the program selection comprises a
26 subscription.

27 44. The apparatus of claim 43, wherein the subscription is for a speciality
28 channel.

1 45. The apparatus of claim 44, wherein the speciality channel is a first-run
2 movie channel.

3 46. The apparatus of claim 44, wherein the speciality channel is a high
4 definition television channel.

5 47. The apparatus of claim 43, wherein the subscription is for a speciality
6 program.

7 48. The apparatus of claim 47, wherein the speciality program is a series of
8 sporting events.

9 49. The apparatus of claim 1, wherein the program data comprises a menu of
10 available programs.

11 50. The apparatus of claim 49, wherein the menu is a barker channel, the barker
12 channel displaying programs and date/time of broadcast.

13 51. The apparatus of claim 49, wherein the menu is a list of available programs.

14 52. The apparatus of claim 49, wherein the menu includes program rating, year
15 of production, and program biographical data.

16 53. The apparatus of claim 52, wherein the biographical data includes a list of
17 actors and a program summary.

18 54. The apparatus of claim 49, wherein the menu includes a hypertext link to
19 a web site on an Internet.

20 55. The apparatus of claim 49, wherein the menu is displayed in a picture-in-
21 picture format with a display of the program selection.

22 56. The apparatus of claim 49, wherein the menu includes submenus.

23 57. The apparatus of claim 56, wherein the submenus include a program
24 selection confirmation submenu and a program description submenu.

25 58. The apparatus of claim 49, wherein the menu includes overlay menus and
26 hidden menus.

27 59. The apparatus of claim 1, wherein the menu is displayed on a web page of
28 an Internet, the web page including a home page and additional pages, the home page
29 and the additional pages accessible by operation of forward, back and home buttons.

1 60. The apparatus of claim 1, wherein the program selection includes a time out
2 feature, the time out feature sending a cancel program order that deauthorizes display of
3 the program selection and prevents a charge for the selected program.

4 61. The apparatus of claim 60, wherein the time out feature is in effect prior to
5 the display of the program selection, and for five minutes thereafter.

6 62. The apparatus of claim 1, wherein the program data is provided in a hard-
7 copy format, the hard copy format including event codes and program identifiers.

8 63. The apparatus of claim 62, wherein the event codes and program identifiers
9 are entered into the apparatus to send the program selection.

10 64. The apparatus of claim 63, wherein the event codes and program identifiers
11 are entered into the apparatus by operation of a remote control coupled to the apparatus.

12 65. The apparatus of claim 63, wherein the event codes and program identifiers
13 are entered into the apparatus by operation of a soft key board displayed on a television
14 display, the television display coupled to the apparatus.

15 66. The apparatus of claim 63, wherein the event codes and program identifiers
16 are entered into the apparatus by operation of a key board coupled to a personal
17 computer.

18 67. An apparatus that provides digital broadcast television program ordering,
19 comprising:

20 an order and authorization system that receives a program order for a
21 terminal in a television distribution network and generates an authorization order that
22 authorizes access to a program; and

23 a broadcaster coupled to the order and authorization system that sends the
24 program to the terminal, wherein the program is multiplexed with other digital broadcast
25 television programs, wherein the broadcaster receives the authorization signal, the
26 authorization signal providing a local authorization code addressed to the terminal, the
27 local authorization code allowing the terminal to demultiplex, decrypt and display the
28 program.

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1 82. The apparatus of claim 78, wherein the sporting event subscription includes
2 a full season subscription and a partial season subscription.

3 83. The apparatus of claim 81, wherein the sporting event subscription includes
4 a favorite team subscription.

5 84. The apparatus of claim 67, further comprising a billing system coupled to
6 the order and authorization system, the billing system receiving the program order and
7 generating a billing record.

8 85. The apparatus of claim 84, wherein the billing record is used to debit a cash
9 card included in the terminal, the billing system sending a debit signal corresponding to
10 the billing record to the terminal.

11 86. The apparatus of claim 67, wherein the order and authorization system
12 includes a time out feature that allows cancellation of the program order without
13 incurring a charge, the time out feature effective for a time prior to a start of the program
14 and for a time after the start of the program.

15 87. The apparatus of claim 86, wherein the time after start of the program is five
16 minutes.

17 88. The apparatus of claim 67, wherein the broadcaster is a national broadcaster.

18 89. The apparatus of claim 67, wherein the broadcaster is a broadcast affiliate.

19 90. The apparatus of claim 67, wherein the broadcaster is a local cable
20 company.

21 91. The apparatus of claim 67, wherein the broadcaster is a digital satellite
22 broadcaster.

23 92. The apparatus of claim 67, wherein the digital broadcast television programs
24 are provided over-the-air.

25 93. The apparatus of claim 67, wherein the digital broadcast television programs
26 are provided over a cable television system.

27 94. The apparatus of claim 67, wherein the digital broadcast television programs
28 are provided over a satellite system.

1 105. The method of claim 104, wherein the remote location is an order and
2 authorization system.

3 106. The method of claim 104, wherein the remote location is an Internet web
4 page.

5 107. The method of claim 104, wherein the remote location is a digital program
6 broadcaster.

7 108. The method of claim 107, wherein the digital program broadcaster is one
8 of a national broadcaster, a broadcast affiliate, a satellite broadcaster and a cable
9 broadcaster.

10 109. The method of claim 108, wherein the digital program broadcaster is co-
11 located with an order and authorization system.

12 110. The method of claim 99, wherein the program data is provided to a terminal
13 in a digital broadcast television environment.

14 111. The method of claim 99, further comprising sending the program
15 authorization from a remote location to a digital programming broadcaster.

16 112. The method of claim 111, wherein the remote location is an Internet web
17 page.

18 113. The method of claim 99, wherein the program authorization includes a local
19 authorization code addressed to a terminal in a digital broadcast television environment,
20 and wherein the sending step comprises multiplexing the program authorization with the
21 digital programming.

22 114. The method of claim 99, wherein the program authorization includes a local
23 authorization code addressed to a terminal in a digital broadcast television environment,
24 and wherein the sending step comprises sending the local authorization code to a
25 terminal in a digital broadcast television environment.

26 115. The method of claim 99, further comprising:
27 waiting for a time out period to determine if a cancel order signal has been
28 received, and if the cancel order signal is not received in the time out period:
29 sending the program order to a billing system, and

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1 preparing a billing record.

2 116. The method of claim 99, further comprising:

3 waiting for a time out period to determine if a cancel order signal has been
4 received, and if the cancel order signal is received in the time out period:

5 generating a deauthorization signal; and

6 transmitting the deauthorization signal, wherein the deauthorization
7 signal removes access to a previously authorized program.

8 117. The method of claim 99, wherein the one or more programs include one of
9 a single event, a multiple event and a subscription.

10 118. The method of claim 117, wherein the local authorization code provides
11 access to the single event on multiple occasions.

12 119. The method of claim 117, wherein the subscription includes a speciality
13 channel subscription and a speciality program subscription.

14 120. The method of claim 119, wherein the speciality channel subscription
15 includes monthly and annual subscriptions.

16 121. The method of claim 119, wherein the speciality channel subscription is a
17 first-run movie channel subscription.

18 122. The method of claim 119, wherein the speciality program subscription is a
19 sporting event subscription.

20 123. The method of claim 119, wherein the sporting event subscription includes
21 a full season subscription and a partial season subscription.

22 124. The method of claim 123, wherein the sporting event subscription includes
23 a favorite team subscription.

24 125. The method of claim 99, wherein the order and authorization system
25 includes a billing system, the billing system receiving the program order and generating
26 a billing record.

27 126. The method of claim 125, further comprising sending a debit signal
28 corresponding to the billing record to a terminal, the debit signal debiting a cash card in
29 the terminal.

1 127. A method for providing digital broadcast programming to a terminal in a
2 television network, comprising:

3 receiving a program order from the terminal;

4 generating an authorization signal;

5 sending the authorization signal to the terminal;

6 broadcasting the program, wherein the program is multiplexed with other
7 digital programs and wherein the authorization signal received by the terminal provides
8 a code that the terminal uses to decrypt the program.

9 128. The method of claim 127, wherein the authorization signal is multiplexed
10 with the other digital programs, the terminal demultiplexing the authorization signal and
11 the digital programs.

12 129. The method of claim 127, wherein a remote site transmits the authorization
13 signal and a broadcaster broadcasts the multiplexed digital programs.

14 130. The method of claim 129, wherein the remote site is an order and
15 authorization system.

16 131. The method of claim 130, wherein the order and authorization system is
17 colocated with the broadcaster.

18 132. The method of claim 131, wherein the remote site is an Internet web site.

19 133. The method of claim 129, wherein the broadcaster is one of a national
20 broadcaster, a broadcast affiliate, a satellite broadcaster and a cable broadcaster.

21 134. The method of claim 127, wherein the multiplexed digital programs are
22 broadcast over-the-air.

23 135. The method of claim 127, wherein the multiplexed digital programs are
24 broadcast over a cable television cable.

25 136. The method of claim 127, wherein the multiplexed digital programs are
26 broadcast over a satellite system.

27 137. The method of claim 127, further comprising:
28 generating a program guide; and

transmitting the program guide, wherein program selections are made based on the program guide.

138. The method of claim 137, wherein the program guide is broadcast to the terminal.

139. The method of claim 137, wherein the program guide is provided at an Internet web site.

140. The method of claim 127, wherein the digital programs include high definition television programs and standard definition television programs.

141. The method of claim 127, further comprising:
generating a billing record corresponding to the program order; and
charging an account of a subscriber who initiated the program order.

142. A method for providing digital broadcast programming to a first terminal in a television network, comprising:

receiving a program order from a second terminal;
generating an authorization code;
sending the authorization code to the first terminal;
broadcasting the program, wherein the program is multiplexed with other digital programs and wherein the authorization code received by the first terminal provides a code that the first terminal uses to decrypt the program.

143. The method of claim 142, wherein the authorization code is multiplexed with the other digital programs, the first terminal demultiplexing the authorization signal and the digital programs.

144. The method of claim 142, wherein a remote site transmits the authorization code and a broadcaster broadcasts the multiplexed digital programs.

145. The method of claim 144, wherein the remote site is an order and authorization system.

146. The method of claim 145, wherein the order and authorization system is a network controller.

1 147. The method of claim 145, wherein the order and authorization system is
2 collocated with the broadcaster.

3 148. The method of claim 145, wherein the remote site is an Internet web site.

4 149. The method of claim 144, wherein the broadcaster is one of a national
5 broadcaster, a broadcast affiliate, a satellite broadcaster and a cable broadcaster.

6 150. The method of claim 144, wherein the remote site gathers programs watched
7 information.

8 151. A method for providing multiple digital broadcast programs to a terminal
9 in a television network, comprising:

10 receiving a program order, wherein the program order requests access to
11 more than one program being broadcast simultaneously;

12 generating an authorization signal;

13 sending the authorization signal to the terminal;

14 broadcasting the programs, wherein the programs are multiplexed with other
15 digital programs and wherein the authorization signal received by the terminal provides
16 a code that the terminal uses to decrypt the more than one programs.

17 152. The method of claim 151, wherein the authorization signal is multiplexed
18 with the other digital programs, the terminal demultiplexing the authorization signal and
19 the more than one programs authorized for viewing by the authorization code.

20 153. The method of claim 151, wherein a remote site transmits the authorization
21 signal and a broadcaster broadcasts the multiplexed digital programs.

22 154. The method of claim 153, wherein the remote site is an order and
23 authorization system.

24 155. The method of claim 154, wherein the order and authorization system is
25 collocated with the broadcaster.

26 156. The method of claim 155, wherein the remote site is an Internet web site.

27 157. The method of claim 153, wherein the broadcaster is one of a national
28 broadcaster, a broadcast affiliate, a satellite broadcaster and a cable broadcaster.

29 158. The method of claim 157, further comprising:

169.	A system that provides digital broadcast television program ordering, comprising:
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1 a processor that receives a program order for a terminal in a television
2 distribution network and generates an authorization order that authorizes access to a
3 program; and

4 a broadcaster coupled to the processor that receives the authorization signal
5 and sends the program to the terminal, wherein the program is multiplexed with other
6 digital broadcast television programs, and wherein the authorization signal provides a
7 local authorization code addressed to the terminal, the local authorization code allowing
8 the terminal to demultiplex, decrypt and display the program.

9 170. The system of claim 169, wherein the local authorization code is
10 multiplexed with the digital broadcast television programs, and wherein the terminal
11 demultiplexes the local authorization code to access the program.

12 171. The system of claim 169, wherein the local authorization code is transmitted
13 by the processor to the terminal.

14 172. The system of claim 169, wherein the program is listed in a program guide.

15 173. The system of claim 172, wherein the program guide is an electronic
16 program guide.

17 174. The system of claim 173, wherein the electronic program guide is provided
18 on a web page on an Internet, and wherein the terminal accesses the web page to receive
19 the electronic program guide.

20 175. The system of claim 173, wherein the electronic program guide is broadcast
21 to the terminal by the broadcaster.

22 176. The system of claim 173, wherein the electronic program guide is in a
23 format of a barker channel showing program selections and time/date of broadcast.

24 177. The system of claim 173, wherein the electronic program guide is a list of
25 available programs, the list capable of being scrolled to show available programs.

26 178. The system of claim 169, wherein the program is listed in a menu.

27 179. The system of claim 169, wherein the processor gathers subscriber specific
28 data for a subscriber, generates subscriber specific menu data, based on the subscriber

1 specific data and provides a subscriber specific menu, based on the subscriber specific
2 menu data, for viewing.

3 180. The system of claim 179, wherein the subscriber specific data includes one
4 of programs watched data, demographic data and subscriber queries.

5 181. The system of claim 180, wherein the programs watched data is based on
6 programs played on the terminal.

7 182. The system of claim 180, wherein the programs watched data is based on
8 program orders received at the processor.

9 183. The system of claim 179, wherein the subscriber specific menu is provided
10 at an Internet web site.

11 184. The system of claim 183, wherein the specific subscriber is identified by one
12 of an ANI, a cookie, a user identification, a user name, and an Internet address.

13 185. The system of claim 179, wherein the subscriber specific menu is provided
14 with a multiplexed program signal.

15 186. The system of claim 179, wherein the subscriber specific menu is provided
16 out of band.

17 187. The system of claim 169, wherein the terminal gathers subscriber specific
18 data for a subscriber.

19 188. The system of claim 187, wherein the subscriber specific data includes one
20 of programs watched data and subscriber queries.

21 189. The system of claim 188, wherein the subscriber specific data is provided
22 to a remote location.

23 190. The system of claim 189, wherein the remote location includes the
24 processor.

25 191. The system of claim 190, wherein the remote location is one of a national
26 broadcaster, a broadcast affiliate, and a local cable system.

27 192. The system of claim 190, wherein the processor generates subscriber
28 specific menu data, based on the subscriber specific data, and provides a subscriber
29 specific menu, based on the subscriber specific menu data, for viewing.

1 193. The system of claim 189, wherein the subscriber specific menu is provided
2 at an Internet web site.

3 194. The system of claim 193, wherein the specific subscriber is identified by one
4 of an ANI, a cookie, an Internet address, a user name, and a user identification.

5 195. The system of claim 193, wherein the specific subscriber is identified by
6 subscriber-provided data.

7 196. The system of claim 189, wherein the subscriber specific menu is provided
8 with a multiplexed program signal.

9 197. The system of claim 189, wherein the subscriber specific menu is provided
10 out of band.

11 198. The system of claim 187, wherein the terminal transmits the gathered
12 subscriber specific data via one of an asymmetric digital subscriber line, an integrated
13 digital services network line, T1 and T3 lines, a cable modem, a telephone modem, a
14 wireless modem, a local area network, and a fiber optic cable.

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